AMENDMENTS TO THE CLAIMS

1. (Original) A metal oxide semiconductor field effect transistor (MOSFET) used in ink-jet head chips, which is connected to an inkjet actuator for controlling the electrical voltage or current passing through the inkjet actuator; the MOSFET comprising at least a source, a drain, and a gate and being characterized in that: the MOSFET is covered with a borophosphosilicate glass (BPSG); at least one contact hole through the BPSG is filled with a plug material at the position corresponding to the drain; the gate length is between 0.35μm and 3.5μm, and the sum of junction depths at the source and the drain is 0.2 to 0.75 times that of the gate length.

2. (Original) The metal oxide semiconductor field effect transistor of claim 1, wherein the BPSG has a thickness between 150nm and 1000nm.

3. (Original) The metal oxide semiconductor field effect transistor of claim 1, wherein the BPSG has a boron content between 0.5wt% and 6.0wt%.

4. (Original) The metal oxide semiconductor field effect transistor of claim 1, wherein the BPSG has a reflow temperature between 850°C and 925°C.

5. (Original) The metal oxide semiconductor field effect transistor of claim 1, wherein the plug material has a thickness between 0.01μm and 1.0μm.

6. (Original) The metal oxide semiconductor field effect transistor of claim 1, wherein the plug material is one selected from the group consisting of W, Pt, Ti, Co, Ni, Mo, Ta, Si, and their alloys and compounds.

7. (Original) A chip structure of an integrated-driver ink-jet head, comprising:

a plurality of MOSFETs, which contains at least one gate, a source, and a drain, wherein the MOSFET is covered with a borophosphosilicate glass (BPSG); at least one contact hole through the BPSG is filled with a plug material at the position corresponding to the drain; the gate length is between 0.35μm and 3.5μm, and the sum of junction depths at the source and the drain is 0.2 to 0.75 times that of the gate length;

a plurality of actuators, which are in electrical communications with the MOSFETs for providing the energy to eject fluid out; and

a plurality of fluid-flow structures, which define at least one fluid-flow channel on an fluid-chamber and a nozzle for the fluid to refill and are in communications with said actuators to eject fluid out.

8. (Original) The chip structure of claim 7, wherein the BPSG has a thickness between 150nm and 1000nm.

9. (Original) The chip structure of claim 7, wherein the BPSG has a boron content between 0.5wt% and 6.0wt%.

10. (Original) The chip structure of claim 7, wherein the BPSG has a reflow temperature between 850□ and 925□.

11. (Original) The chip structure of claim 7, wherein the plug material has a thickness between 0.01μm and 1.0μm.

12. (Original) The chip structure of claim 7, wherein the plug material is at least one selected from the group consisting of W, Pt, Ti, Co, Ni, Mo, Ta, Si, and their alloys and compounds.

13-19. (Cancelled)